



BEST AVAILABLE COPY

-1-

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of)
)
Irvin M. Pritts)
)
Serial No.: 10/714,808)
)
Filed: November 13, 2003)
)
For: Apparatus for Distributing)
Fragrance on a Cleaning Surface)

Group Art Unit 1744
Terrence R. Till, Examiner

Certificate of Mailing

I hereby certify that this correspondence was deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 21st day of February, 2007.

Mary L. Spoonster
Mary L. Spoonster

DECLARATION OF IRVIN M. PRITTS UNDER 37 CFR 1.131

Sir:

I, Irvin M. Pritts, hereby declare that:

1. I am a resident of the state of Pennsylvania, and am the inventor named on the above-captioned patent application, U.S. Serial No. 10/714,808.
2. I have reviewed the patents and publications cited by the Examiner in the Office Action dated 12/18/2006, and, in particular, U.S. Patent Publication No.2006/0166848 ('848 Publication) filed on August 5, 2003.
3. I invented the claimed invention before August 5, 2003.
4. The claimed invention was conceived at least as early as November 13, 2002 as evidenced by the attached design sketch (Ex. A).
5. I recorded the invention in the design sketch as part of my duties at The Hoover Company
6. After I prepared the design sketch, The Hoover Company diligently worked towards reducing this invention to practice. On December 12, 2002, I prepared a Research Work Request (Ex. B) to define and develop a product formulation which can be used in the rinse solution of an extractor that provides fragrance attributes. Then, tablets were produced and testing using the tablets within an extractor began at least as early as February 13, 2003 (Ex. C). Testing continued until production in 2004. (Ex. B, updates, Ex. D, and Ex. E) This

testing was performed to develop an effective tablet (Ex. C) that would be compatible with the components of an extractor (Ex. D and Ex. E).

7. These tablets were used in connection with extractors built by Hoover in the United States. Production and sale of extractors with the tablets began in September, 2004.

8. Concurrent with the efforts to actually reduce the invention to practice, steps were taken to constructively reduce the invention to practice by filing a patent application.

9. The design sketch was given to our in-house patent department for review and a patent application was prepared and filed on November 13, 2003.

FURTHER AFFIANT SAYETH NAUGHT.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.



IRVIN M. PRITTS

Date: 2/20/2007

A new rinse solution product is described for use in extractors, consisting of the following:

- (1) A 6-pack of fragrance tablets, comprised of three different fragrance tablets.
- (2) Each tablet also contains a water softening conditioner to treat one gallon of hard water.

A possible experimental formulation for these fragrance tablets could include sodium bicarbonate, cornstarch, and/or citric acid. An effervescent action would be obtained from the formulation above. Fragrances would be added and tablets pressed. Each tablet would need to dissolve readily in one gallon of hot water. The fragrance per gallon would need to be effective for a carpet area of @ 80 sq. ft. Fragrances could include popular "aroma therapy" oils such as jasmine or lavender.

KEYWORDS	1. <u>Fragrance</u>	2. <u>Rinse</u>	3. <u>Extractor</u>
SHEET	OF		
TITLE	EXTRACTOR RINSE TANK FRAGRANCE TABLETS		052451
<u>ENGINEERING REVIEW</u>		NO PRESENT INTEREST	
+	Δ	S	HAVE BETTER MEANS
+	Δ	S	NOT FUNCTIONAL
+	Δ	S	WILL BE USED ON MODEL
SIGNATURE <u>Tim Dotts</u>		DATE <u>11-13-02</u>	
WITNESS <u>William Bailey</u>		DATE <u>11/13/02</u>	
WITNESS <u>Don Walter</u>		DATE <u>11/13/02</u>	
FORM E0116 (R3)		P. J. NO.	
		CASE	

CONFIDENTIAL

EXHIBIT B**RESEARCH WORK REQUEST**

ASSIGNEE: IMP

DATE:12/12/2002

PROJECT TITLE: Fragrance tablets

RWR#: 149

REQUESTED COMPLETION DATE:

BA/PIN#:

UPDATES:

POTENTIAL RESOURCES:

NAME (INITIALS):

HOURS:

DESCRIPTION:

PROJECT DESCRIPTION:

Define and develop a product formulation which can be used in the rinse solution of an extractor that provides fragrance attributes.

GOALS AND RELATED ISSUES:

DELIVERABLE:

REQUESTOR:

PRIORITY:

APPROVED: Don Coates/Eng/Hoover/Maytag

DATE:12/15/2002

ATTACHMENTS:

CHANGES / REVISIONS:

DATE: 12/20/2002

REVISION #1:



Project Flower.doc

DATE: 04/28/2003

REVISION #2:

Two formulations have been developed. The first formulation was evaluated and displayed good effervescence and nice fragrances. Dissolved well in hot water. Did leave some colored residue which could be a problem on upholstery. The second formulation has the following attributes:

- (1) Fragrances: Lavender, Jasmine, Vanilla
- (2) Water-softener
- (3) Effervescence

This formulation is complete but Elco is trying to cost reduce from \$1.51 per 9-pack.

DATE: 08/20/2003

REVISION #3:

Flow rate and distribution performance of extractor models were evaluated (P351) using worst case scenarios such as multiple tablet usage with cold water. No major obstructions or failures were noted. Some small decreases in flow rates were noted with the (old) SteamVac Widepath.

DATE:

REVISION #4:

DATE:

REVISION #5:

SUMMARY / CONCLUSION:

Lot E092302 with EDTA



Fragrance Tablets Evaluation.dA cleaning study was conducted with detergent and fragrance tablets to see if they improved cleaning when using hard water. Cleaning was



identical w and w/o fragrance tablet. aromatherapytab3.doc

Notes: Oct. 27, 2004 Coughlin asked and was given permission to increase the fragrance from 0.5 to 1% lemon verbena. The addition made the tablet more easily pressed. Marketing was informed. Experimental tablets were requested for evaluation. Dec 13, 2004: New tablets arrived. 1% fragrance. The calcium silicate binder remained at 0.2%. Formula Number is 3413 and contains 20% disodium EDTA. %solids = 0.28% tablet weights: 7.247, 7.273.

DATE CLOSED: 12/13/2004

SIGNATURE:IMP

Project *Flower*

CONFIDENTIAL

- A. Simple Extractor Rinse¹ Tank Fragrance Tablets: 3 Fragrances
- B. Carpet conditioner, such as water softener or other enhancement (desirable but not required)
- C. Launch: June 1, 2003

For use with Eagle Extractor with Auto and Manual Rinse, the rinse solution should be compatible (if feasible) with detergent when mixed at a 10:1 ratio. With other extractors, the rinse solution is applied post-extraction.

Technical Direction Suggestion

A possible experimental formulation for these fragrance tablets could include sodium bicarbonate, cornstarch, and/or citric acid. An effervescent action would be obtained from the formulation above. Fragrances could be added and tablets pressed. Each tablet would need to dissolve readily in one gallon of hot water. The fragrance per gallon would need to be effective for a carpet area of @ 80 ft². Experimental fragrances could include popular "aroma therapy" oils such as jasmine or lavender.

Fragrance Tablets Evaluation

Irv Pritts February 13, 2003

Description: Pellet Shaped, Excellent Effervescence, Dissolution in hot water:
0.5-2 minutes

Lavender Fragrance/Purple Pellet

Weight: 7.2 g/pellet (Average of two)

Residue after dissolution: 0.44 %

pH = 7.4 (2 tablets/250 mL HOH @59 degC)

Vanilla/Tan Pellet

Weight: 7.2 g/pellet (Average of three)

Residue after dissolution: 0.64%

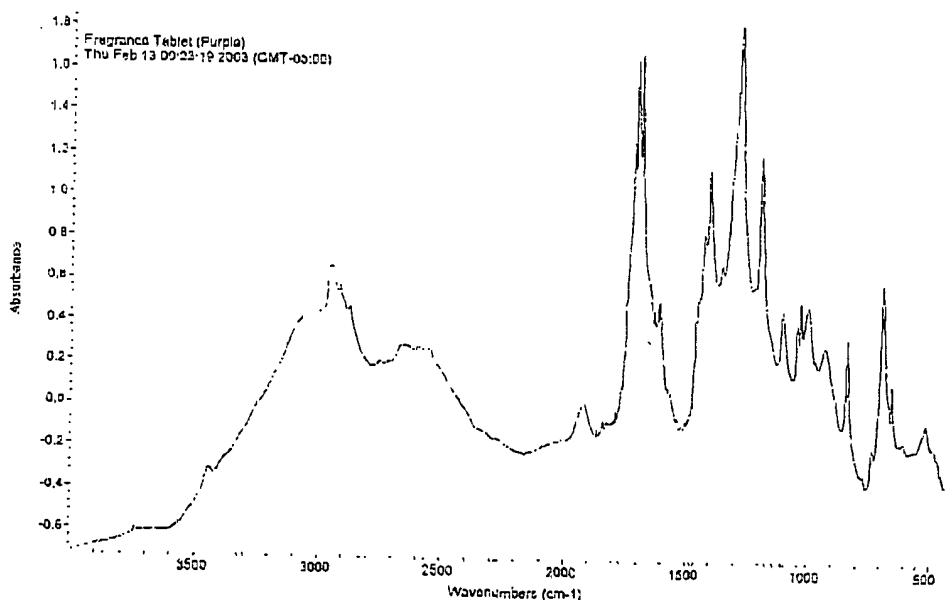
Jasmine Fragrance/Orange Pellet

Cost: @\$0.15 ea (contains softener)

Issues?

- Odor evaluation after extractor application: Not strong enough. Recommend more than 1 pellet per gallon?
- Tablet dye: Upholstery or carpet issue? Reduce or eliminate dye.
- Add water softener such as EDTA.
- Check appliance for orifice blocking, etc.

Infrared: Sodium bicarbonate: principal component



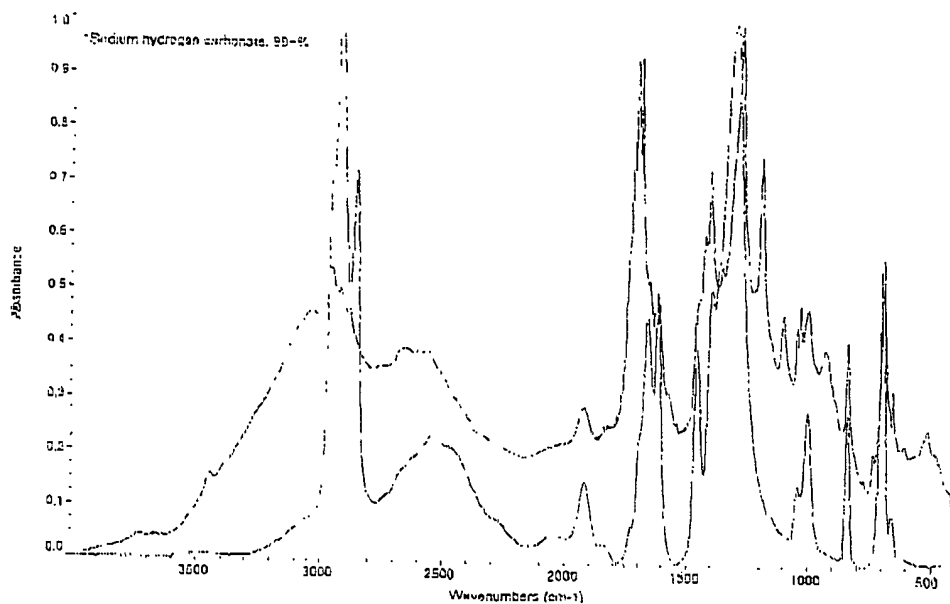


EXHIBIT C

Fragrance Tablets Evaluation

Irv Pritts February 13, 2003

Description: Pellet Shaped, Excellent Effervescence, Dissolution in hot water:
0.5-2 minutes

Lavender Fragrance/Purple Pellet

Weight: 7.2 g/pellet (Average of two)

Residue after dissolution: 0.44 %

pH = 7.4 (2 tablets/250 mL HOH @59 degC)

Vanilla/Tan Pellet

Weight: 7.2 g/pellet (Average of three)

Residue after dissolution: 0.64%

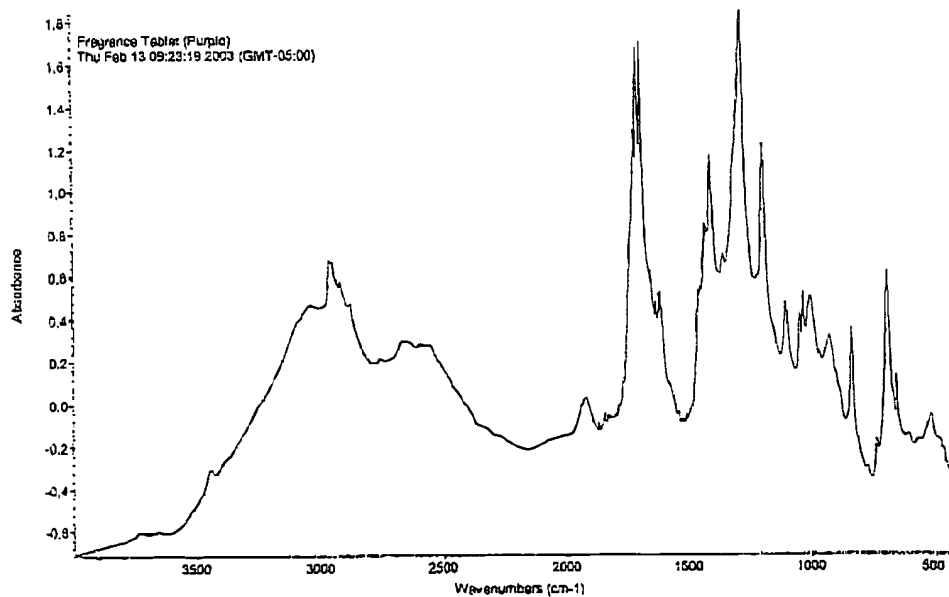
Jasmine Fragrance/Orange Pellet

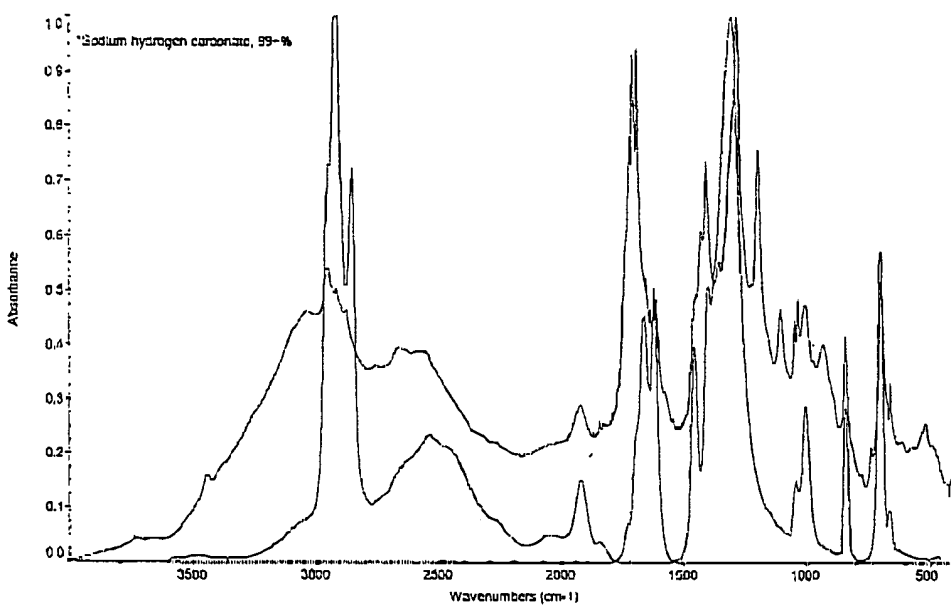
Cost: @\$0.15 ea (contains softener)

Issues?

- Odor evaluation after extractor application: Not strong enough.
Recommend more than 1 pellet per gallon?
- Tablet dye: Upholstery or carpet issue? Reduce or eliminate dye.
- Add water softener such as EDTA.
- Check appliance for orifice blocking, etc.

Infrared: Sodium bicarbonate: principal component





Fragrance Tablets Evaluation

Irv Pritts February 13, 2003

Description: Pellet Shaped. Excellent Effervescence, Dissolution in hot water:
0.5-2 minutes

Lavender Fragrance/Purple Pellet

Weight: 7.2 g/pellet (Average of two)

Residue after dissolution: 0.44 %

pH = 7.4 (2 tablets/250 mL HOH @59 degC)

? Vanilla/Tan Pellet

Weight: 7.2 g/pellet (Average of three)

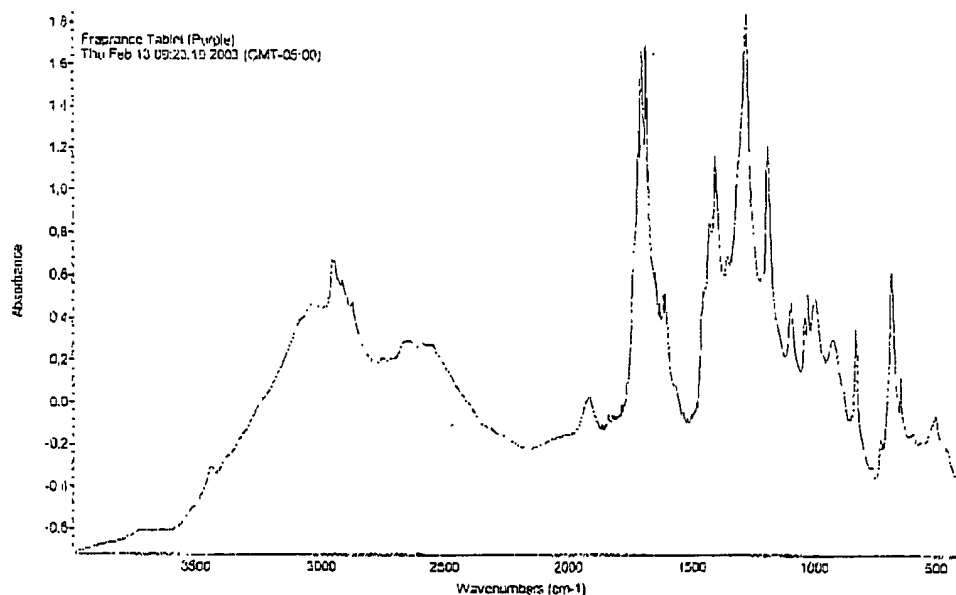
Residue after dissolution: 0.64%

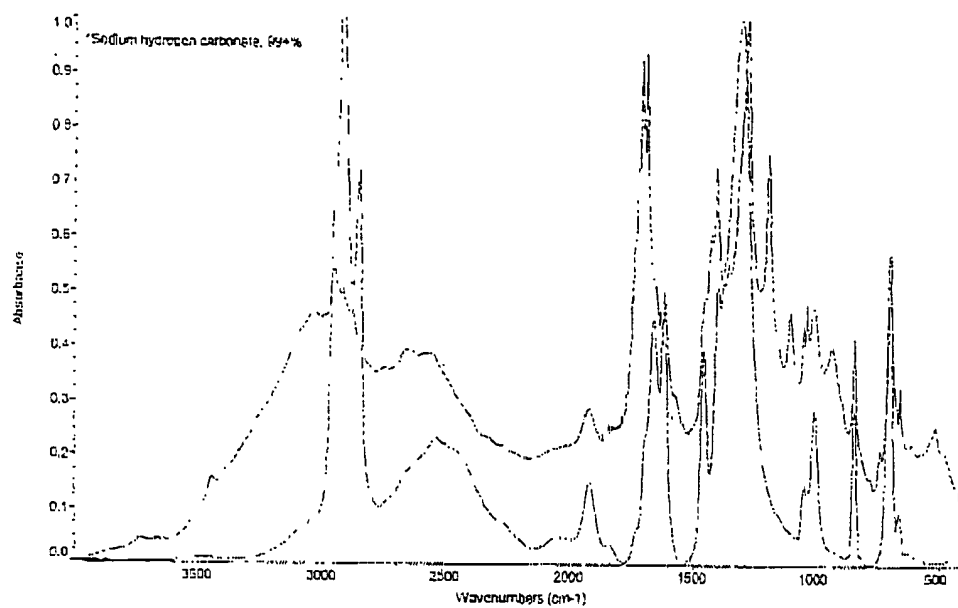
Jasmine Fragrance/Orange Pellet

Issues?

- a. Odor evaluation after extractor application: Not strong enough.
Recommend more than 1 pellet per gallon?
- b. Tablet dye: Upholstery or carpet issue? Reduce or eliminate dye.
- c. Add water softener such as EDTA.

Infrared: Sodium bicarbonate: principal component





HOOVER PRODUCT LAB REQUISITION**1. Test Definition****Requester:** Irvin Pritts**Part/CleanerName:** Extractors**Part#/Model#:** Fragrance Tablets**BA or Pin#:** 7214Get Next Test Number**Test No.:** P351**Phone:** 2147**Desired Completion Date**

(date only): 09/01/2003

Test Type:

<input type="checkbox"/> Field Failure Analysis	
<input type="checkbox"/> Filtration	
<input type="checkbox"/> Noise and Vibration Analysis	
<input type="checkbox"/> Cost Reduction	
<input type="checkbox"/> Product Improvement	
<input type="checkbox"/> Technical Data needed	
<input checked="" type="checkbox"/> Other	
<input type="checkbox"/> ASTM	
<input type="checkbox"/> Staff Assignment	

Other

Purpose of Request? Please determine if residue particulates from the dissolution and use of fragrance tablets (1 tablet /1 gallon of hot water) blocks orifices or valves when used in any of our extractors. The Eagles may be most likely to show any problem?

Comments

I have tablets in my office. x2147

cc:

2. Status This section is to be filled out by Product Lab personnel**Person Assigned:** EngCoop7**Phone:**Send to Assignee

Current Status:

<input type="radio"/>	Working On
<input type="radio"/>	Running
<input type="radio"/>	Hold
<input checked="" type="radio"/>	Complete

3. Conclusion -

Summary:

The fragrance tablets were tested in both a SteamVac V2 6-brush (model F7426-900, sn: 050300013109) and a SteamVac Widepath 6-brush (model F6030-900, sn: 050100005783). The units were tested in tool and floor mode. In addition to being used as directed, with 1 tab in 1 gallon of hot water, different concentrations and water temperatures were used in an attempt to simulate how the consumer might use them. The effects of the tablets were measured by flow rate and flow distribution testing.

Many of the test results were marginal and the supply of tablets was limited. Using the tablets in cool water can negatively affect the flow rate. It is strongly recommended that further testing be done on additional units when more fragrance tablets become available, as it cannot be assumed that the customer will use the product exactly as directed.

The test results are summarized below, grouped by test unit. See the attached spreadsheet for the test data and plots of total flow and distribution.

SteamVac Widepath

-Floor Mode

- Using the tabs in increased concentration with 120°F water decreased the flow rate slightly, bringing it below the minimum required in the performance data sheet.
- Using the tabs in cool water caused a decrease in total flow, as did allowing the unit to sit with fragranced solution in it overnight.
- Flushing the unit with 120°F water seemed to help clear out the system.

-Tool Mode

- A poor spray pattern was observed on the unit as received. Using the tablets in cool water decreased the total flow slightly. *but not 50%. Flow was not 0.1 gpm to begin with. Talked to Beth before she left, 8-20-03*

SteamVac V2 6-brush

-Floor Rinse Mode

- The unit met the minimum flow rate required on the spec when used with 1 tablet per gallon of hot water.
- Mixed results were seen when the tablets were used in cool water. Letting the solution sit overnight in the unit had a significant impact on the total flow rate.
- As seen in the other unit, flushing it with hot water helped clear out the system.

-Floor Wash Mode

- When ran with water in the water tank and detergent in the detergent tank, the unit was slightly below the flow rate spec. Using the tablets in the detergent affected the flow slightly.

-Tool Rinse Mode

- The tablets did not significantly affect the flow rate.

Testing completed by Bethann M. Armbruster

Hours charged to BA or PIN:

33

Notebook # containing data:

11886



Place attachments here:

P351 fragrance tabs.xls

*No obstructions that
→ caused complete failure.
→ tool mode would not
work because of upholstery
dyeing.
→ less than 10% flow decrease.*

4. Signatures -

Product Lab: EngCoop7

Date: 08/20/2003

Sent From: Irvin Pritts/Eng/Hoover/Maytag

Last Modified By: EngCoop7/Eng/Hoover/Maytag

Creation Date: 07/22 08:48 AM

14-Aug-03

Fragrance tablet testing

Product Lab Request P351

Reclined handle 31.5 inches for floor mode. For tool mode, unit on floor with bucket on bench
Positions were numbered from left to right facing front of unit

Flow Rate Testing

Unit	Mode	Tank Before	Tank After	gpm	Solution
SteamVac 6 brush 1 in:050100005783	Floor	4494.0	3357.0	0.300	120°F water
SteamVac 6 brush 2 in:050100005783	Floor	4555.9	3428.0	0.298	Cool water
SteamVac 6 brush 3 in:050100005783	Tool	2453.2	2276.6	0.047	Room temp water, ~3 tab/gal
SteamVac 6 brush 6 in:050100005783	Tool	4082.3	3881.6	0.053	Cool water
SteamVac 6 brush 24 in:050100005783	Tool	4339.9	4110.0	0.058	Cool water
SV V2 6-brush 7 in: 13109	Tool Rinse	3250.5	2888.0	0.096	Cool water
SV V2 6-brush 8 in: 13109	Floor Rinse	4240.2	3216.1	0.271	Cool water
SV V2 6-brush 9 in: 13109	Floor Rinse	3676.2	2588.2	0.287	120°F water, 1 tab/gal - 1 min run done immediately
SV V2 6-brush 10 in: 13109	Floor Rinse	1892.6	1344.2	0.290	Cool water, 4 tab/gal - fully dissolved before 30 sec run
SV V2 6-brush 11 in: 13109	Floor Rinse	2441.2	2014.3	0.226	4 tab/gal - sat overnight with solution tank in, 30 sec run
SV V2 6-brush 12 in: 13109	Floor Rinse	4634.5	3646.6	0.261	Cool water, 1 min run
SV V2 6-brush 13 in: 13109	Floor Rinse	4734.2	3666.1	0.282	120°F water, 1 min run after flushing w/ 1 gal 120°F water
SV V2 6-brush 14 in: 13109	Floor Rinse	4505.7	3480.1	0.271	Cool water, 1 min run
SV V2 6-brush 15 in: 13109	Floor Rinse	4807.1	3798.6	0.266	Cool water, 1 min run
SV V2 6-brush 16 in: 13109	Tool Rinse	4376.9	3933.6	0.117	Leftover fragranced water, room temp, 1 min run
SV V2 6-brush 17 in: 13109	Tool Rinse	4718.9	4306.4	0.109	Cool water, 1 min run

Flow Distribution Testing

Empty cup weights:

#1	51.6	g
#2	55.1	g
#3	52.3	g

BMA

8/20/2003

-8236790.xls, Data

14-Aug-03

Fragrance tablet testing

Product Lab Request P351

Reclined handle 31.5 inches for floor mode. For tool mode, unit on floor with bucket on bench

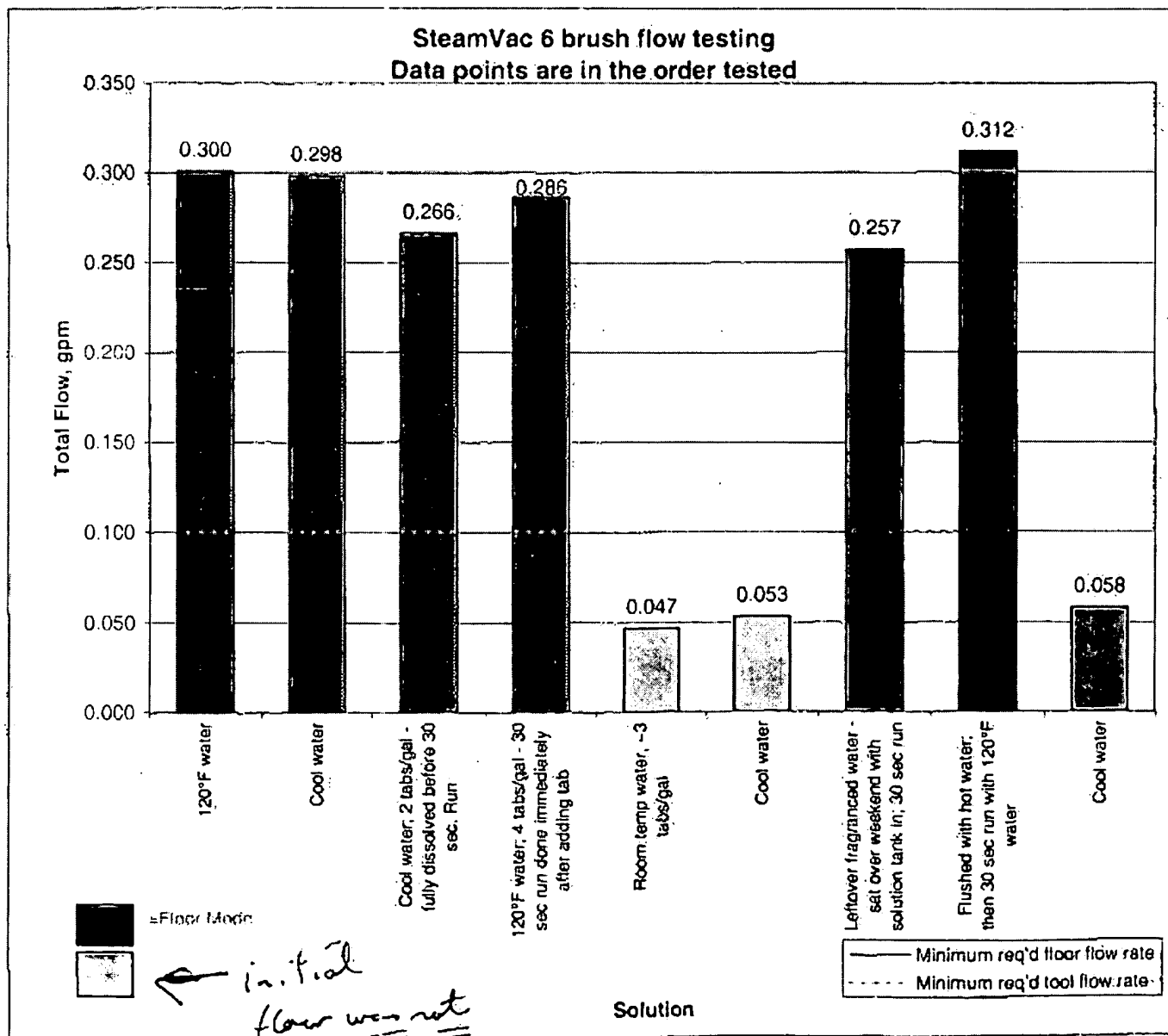
Positions were numbered from left to right facing front of unit

#4	51.7	R
#5	52.8	R
#6	51.3	R

Unit	Mode	Position (Brush #)						Total in Cups (g/30 sec)	Total gpm	Solution
		1	2	3	4	5	6			
3 in:050100005783	Floor	84.8	81.3	84.1	84.7	83.6	85.1	503.6	0.266	Cool water, 2 tabs/gal - fully dissolved before 30 sec. Run
4 in:050100005783	Floor	85.4	95.4	86.8	97.5	81.1	95.2	541.4	0.286	120°F water, 4 tabs/gal - 30 sec run done immediately after adding tab
22 in:050100005783	Floor	78.6	84.3	89.3	83.4	74.3	76.1	486.0	0.257	weekend with solution tank in; 30 sec run
23 in:050100005783	Floor	94.6	103.7	95.7	106.2	90.5	99.1	589.8	0.312	Flushed with hot water; then 30 sec run with 120°F water
18 in:13109	Floor Rinse	194.9	187.8	196.0	97.2	130.7	136.9	471.8	0.249	Cool water, 1 min run
19 in:13109	Floor Rinse	96.2	86.9	92.4	46.6	51.7	65.5	439.3	0.232	Cool water, 4 tabs/gal - 30 sec run done immediately after adding tab
20 in:13109	Floor Rinse	95.0	90.9	90.5	31.3	59.4	52.3	417.4	0.221	Used solution from run #19; allowed tabs to stop fuzing, 30 sec run, residue left in tank bottom
21 in:13109	Floor Wash	119.7	127.5	132.8	134.8	149.1	168.6	416.3	0.220	1 slightly dissolved tab in detergent (full tank); cool water; 1 min run
25 in:13109	Floor Wash	126.3	141.7	139.0	144.5	153.5	181.4	443.7	0.234	Let tank sit with tab in detergent over weekend; 1 min run
26 in:13109	Floor Wash	214.2	204.3	214.3	118.7	146.6	152.2	595.2	0.277	Flushed with hot water; then 1 min run with cool water
27 in:13109	Floor Wash	127.0	140.8	145.8	143.9	158.5	181.5	448.8	0.237	1 min cool water, detergent in det. tank
28 in:13109	Floor Wash	125.2	141.6	146.1	146.3	157.1	182.8	449.6	0.238	1 slightly dissolved tab in detergent (full tank); cool water; 1 min run
29 in:13109	Floor Wash	126.5	137.5	138.9	145.8	143.0	182.1	436.9	0.231	Let tank sit with tab in detergent overnight; 1 min run with cool water
30 in:13109	Floor Wash	129.9	133.4	137.7	146.2	135.5	180.6	428.2	0.226	Rinsed tanks, flushed system with hot water; 3 min run with cool water - detergent in det. tank

*The wheel on the unit was not turned in order to engage the transmission. The cleaner may have been in rinse mode. These results were not included in the plots or conclusions.

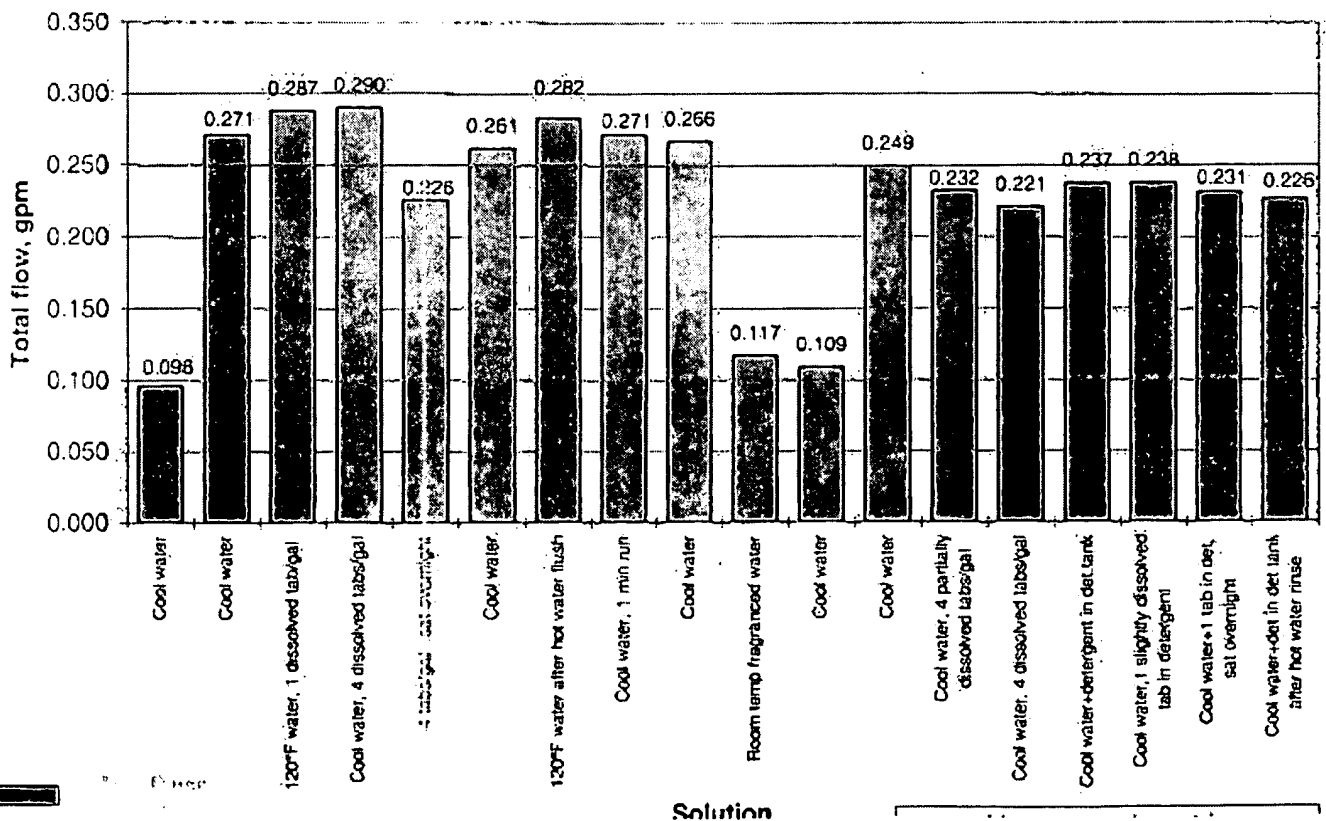
	Mode	Total gpm	Solution	Minimum Floor	Minimum Tool
1	Floor	0.300	120°F water	0.3	0.1
2	Floor	0.298	Cool water	0.3	0.1
3	Floor	0.266	Cool water; 2 tabs/gal - fully dissolved before 30 sec. Run	0.3	0.1
4	Floor	0.286	120°F water; 4 tabs/gal - 30 sec run done immediately after adding tab	0.3	0.1
5	Tool	0.047	Room temp water, ~3 tabs/gal	0.3	0.1
6	Tool	0.053	Cool water	0.3	0.1
22	Floor	0.257	Leftover fragranced water - sat over weekend with solution tank in; 30 sec run	0.3	0.1
23	Floor	0.312	Flushed with hot water; then 30 sec run with 120°F water	0.3	0.1
24	Tool	0.058	Cool water	0.3	0.1

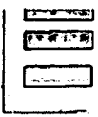


SV V2 6-brush
 size 13109

	Mode	gpm	Solution	Minimum Floor	Min tool
7	Tool Rinse	0.096	Cool water	0.25	0.1
8	Floor Rinse	0.271	Cool water	0.25	0.1
9	Floor Rinse	0.287	120°F water, 1 dissolved tabs/gal	0.25	0.1
10	Floor Rinse	0.290	Cool water, 4 dissolved tabs/gal	0.25	0.1
11	Floor Rinse	0.226	4 tabs/gal - sat overnight	0.25	0.1
12	Floor Rinse	0.261	Cool water	0.25	0.1
13	Floor Rinse	0.282	120°F water after hot water flush	0.25	0.1
14	Floor Rinse	0.271	Cool water, 1 min run	0.25	0.1
15	Floor Rinse	0.266	Cool water	0.25	0.1
16	Tool Rinse	0.117	Room temp fragranced water	0.25	0.1
17	Tool Rinse	0.109	Cool water	0.25	0.1
18	Floor Rinse	0.249	Cool water	0.25	0.1
19	Floor Rinse	0.232	Cool water, 4 partially dissolved tabs/gal	0.25	0.1
20	Floor Rinse	0.221	Cool water, 4 dissolved tabs/gal	0.25	0.1
27	Floor Wash	0.237	Cool water+detergent in det tank	0.25	0.1
28	Floor Wash	0.238	Cool water, 1 slightly dissolved tab in detergent	0.25	0.1
29	Floor Wash	0.231	Cool water+1 tab in det, sat overnight	0.25	0.1
30	Floor Wash	0.226	Cool water+detergent in det tank after hot water rinse	0.25	0.1

SteamVac V2 6-brush flow rate testing Data points are in order tested



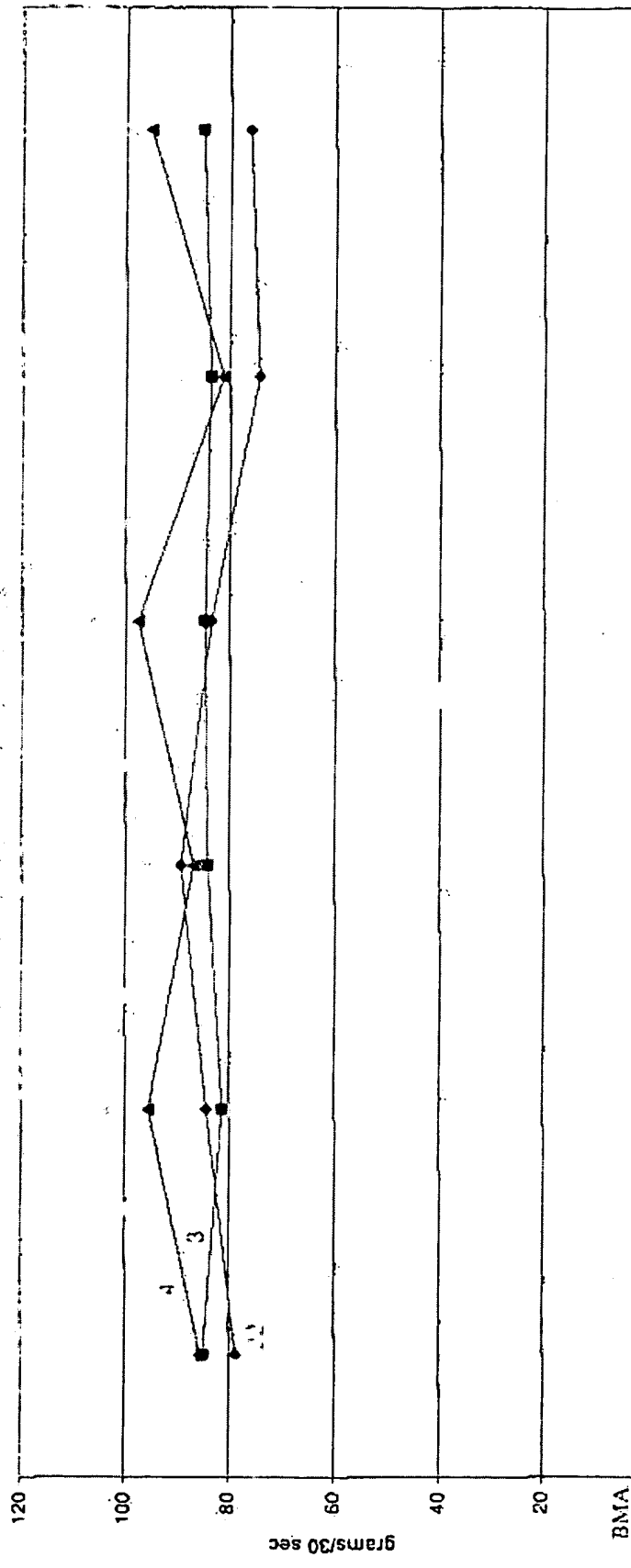


Solution

..... Minimum req'd tool flow rate
—— Minimum req'd floor flow rate

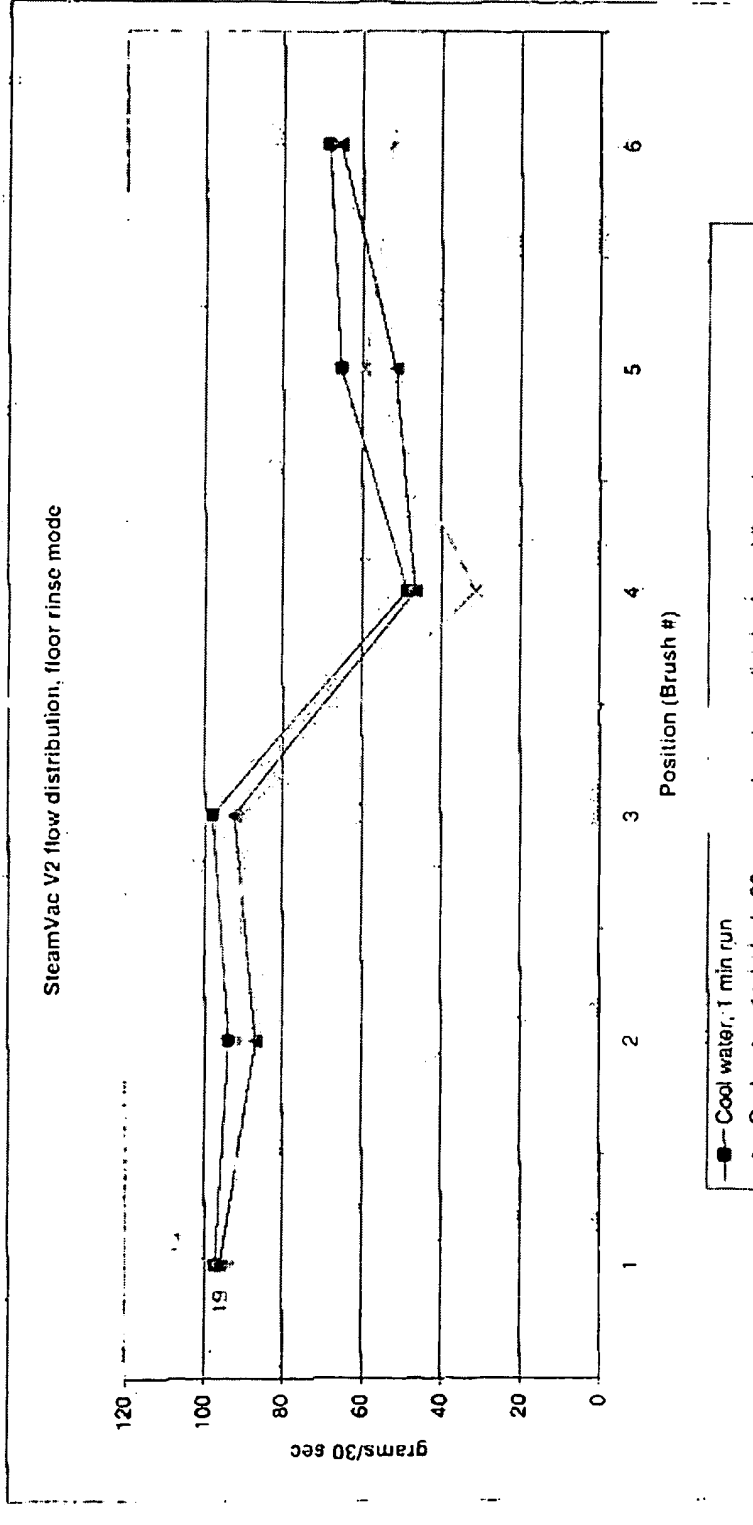
Unit	Mode	Position (Brush #)						Cups (g/30 sec)	Total gpm	Solution
		1	2	3	4	5	6			
3 sn:050100005783	Floor	84.8	81.3	84.1	84.7	83.6	85.1	503.6	0.266	Cool water; 2 tabs/gal - fully dissolved before 30 sec. Run
4 sn:050100005783	Floor	85.4	95.4	86.8	97.5	81.1	95.2	541.4	0.286	120°F water; 4 tabs/gal - 30 sec run done immediately after adding tab
22 sn:050100005783	Floor	78.6	84.3	89.3	83.4	74.3	76.1	486.0	0.257	Leftover fragranced water - sat over weekend with solution tank in; 30 sec run
23 sn:050100005783	Floor	94.6	103.7	95.7	106.2	90.5	99.1	589.8	0.312	Flushed with hot water; then 30 sec run with 120°F water

SteamVac 6 brush flow distribution, floor mode



0	1	2	3	Position (Brush #)	4	5	6
				<ul style="list-style-type: none"> ■ Cool water, 2 tabs/gal - fully dissolved before 30 sec. Run ◆ Leftover fragranced water - sat over weekend with solution tank in; 30 sec run 	<ul style="list-style-type: none"> ▲ 120°F water; 4 tabs/gal - 30 sec run done immediately after adding tab Flushed with hot water; then 30 sec run with 120°F water 		

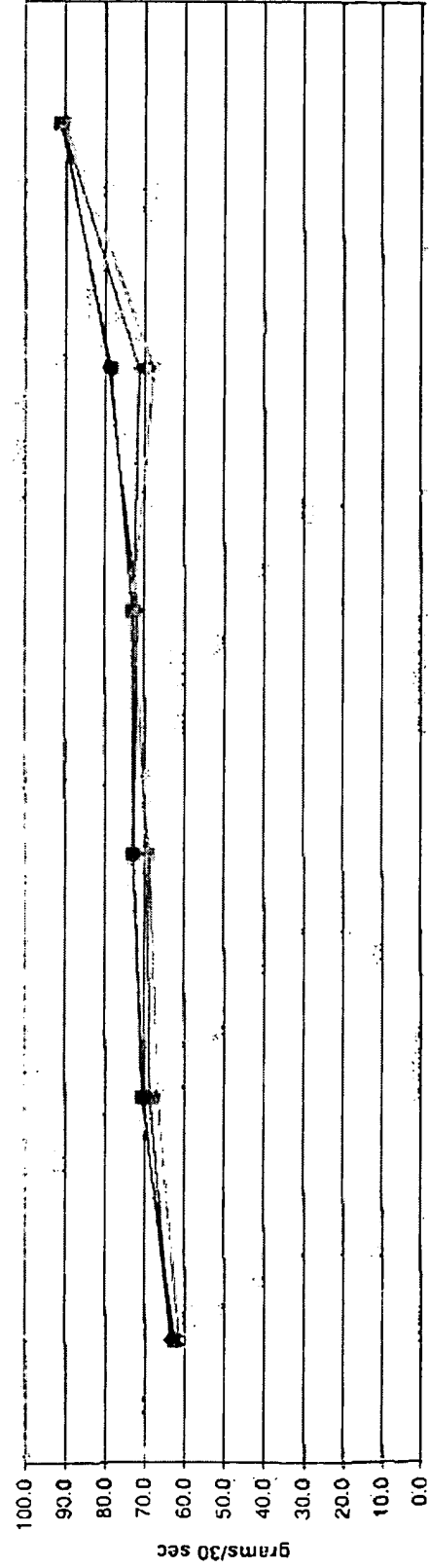
Unit	Mode	Position (Brush #)						Total in Cups (g/30 sec)	Total gpm	Solution
		1	2	3	4	5	6			
SV V2 6- brush 18 sn: 13109	Floor Rinse	97.45	93.9	98	48.6	65.35	68.45	471.75	0.249273	Cool water, 1 min run
SV V2 6- brush 19 sn: 13109	Floor Rinse	96.2	86.9	92.4	46.6	51.7	65.5	439.3	0.232127	Cool water; 4 tabs/gal - 30 sec run done immediately after adding tab
SV V2 6- brush 20 sn: 13109	Floor Rinse	93	90.9	90.5	31.3	59.4	52.3	417.4	0.220555	Used solution from run #19; allowed tabs to stop fizzing; 30 sec run, residue left in tank bottom



- Cool water, 1 min run
- Cool water, 4 tabs/gal - 30 sec run done immediately after adding tab
- Used solution from run #19; allowed tabs to stop fizzing, 30 sec run, residue left in tank bottom

Unit	Mode	Position (Brush #)						Total in Cups (p/30 sec)	Total gpm	Solution
		1	2	3	4	5	6			
SV V2 6- brush 27 sn: 13109	Floor Wash	63.5	70.4	72.9	72.0	79.3	90.75	448.8	0.237	1 min cool water, detergent in det. tank
SV V2 6- brush 28 sn: 13109	Floor Wash	62.6	70.8	73.1	73.2	78.6	91.4	449.6	0.238	1 slightly dissolved tab in detergent (full tank); cool water; 1 min run
SV V2 6- brush 29 sn: 13109	Floor Wash	63.3	68.8	69.5	72.9	71.5	91.05	436.9	0.231	Let tank sit with tab in detergent overnight; 1 min run with cool water
SV V2 6- brush 30 sn: 13109	Floor Wash	61.5	66.7	68.9	73.1	67.8	90.3	428.2	0.226	Rinsed tanks, flushed system with hot water; 1 min run with cool water - detergent in det. tank

SteamVac V2 6-brush flow distribution, Floor wash mode



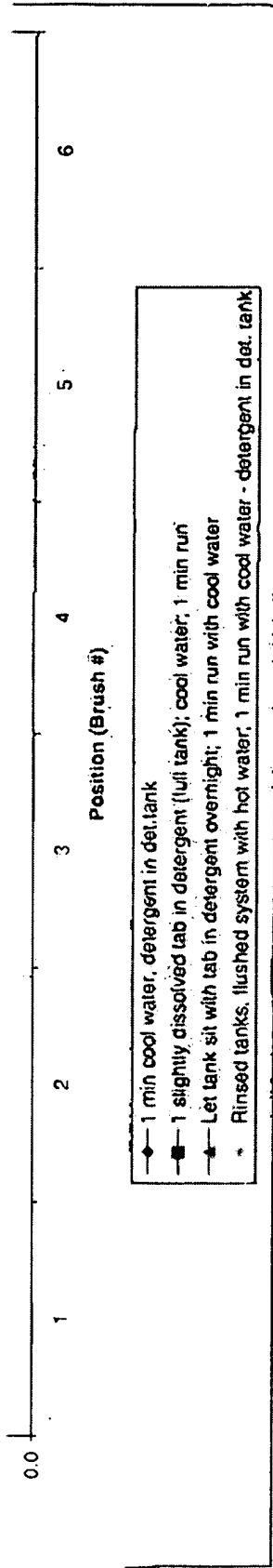


EXHIBIT E

THE HOOVER COMPANY

Memo

From: Irvin Pritts

Date: October 6, 2003

Subject: Aroma Therapy Tablets

Analysis

Lot: E092303 with EDTA

Appearance: White Solid Tablet

pH: 6.1 (1 tablet/gal)

Residue (Ave. of 2): nil, (<0.005 %)

Hard Water Softening: One tablet will soften 1 gallon of 114 mg/L hard water.

Odor: Lavender

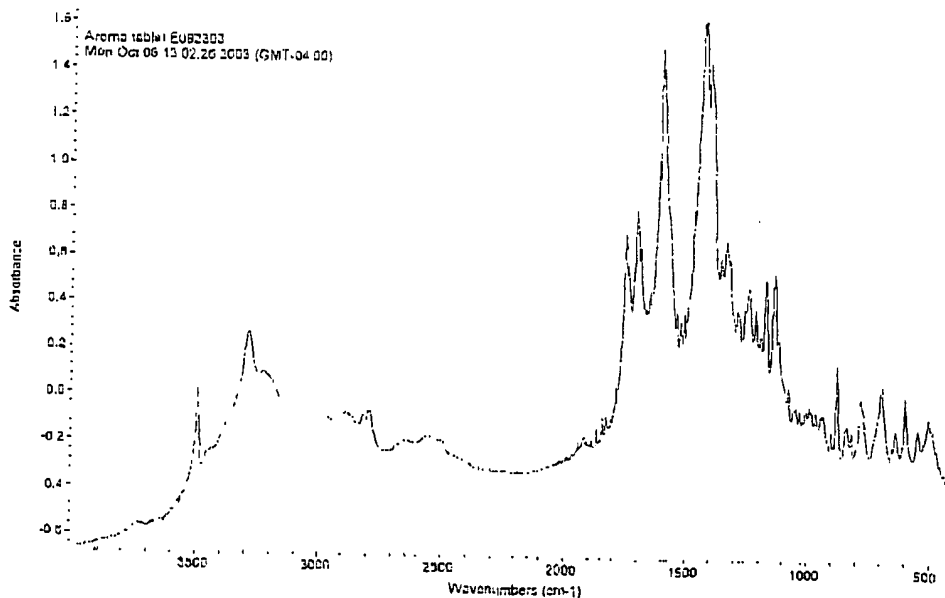
Wt. (Ave. of 5): 6.4 g

Plastic Compatibility: Materials Department (Report 945) evaluated compatibility with eight plastic types with no compatibility issues. The Dual V extractor valve elastomer O-rings (EPDM) were also compatible.

UL Approval:

Cost: \$0.15/ tablet

Infrared Spectra



Memo

From: Irvin Pritts

Date: June 30, 2004

Subject: Aromatherapy Tablets

Analysis

Lot: 1774-1; 1774-3

Composition: Sodium bicarbonate, EDTA, citric acid, fragrance

Appearance: White marble-shaped solid

Fragrance: 1774-1 Lavender (1%); 1774-3 Lemon Verbena (1%)

pH: 6.7 (1 tablet/Liter)

Wt. (Ave. of 6): 7.2 g

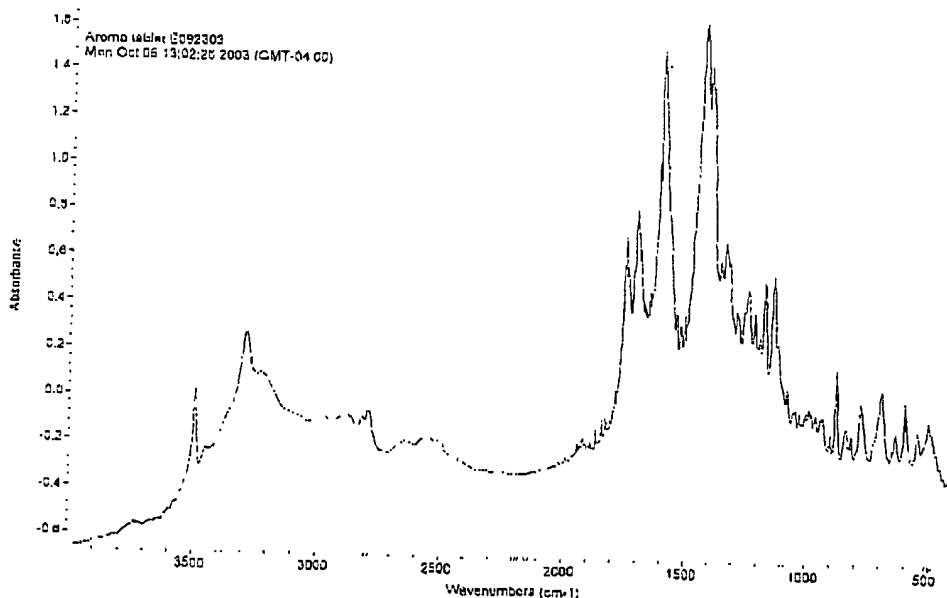
Undissolved Residue (Ave. of 3): 0.51% Residue problem caused by clay addition to formulation.
See attached IR for calcium bentonite and residue 73% match.

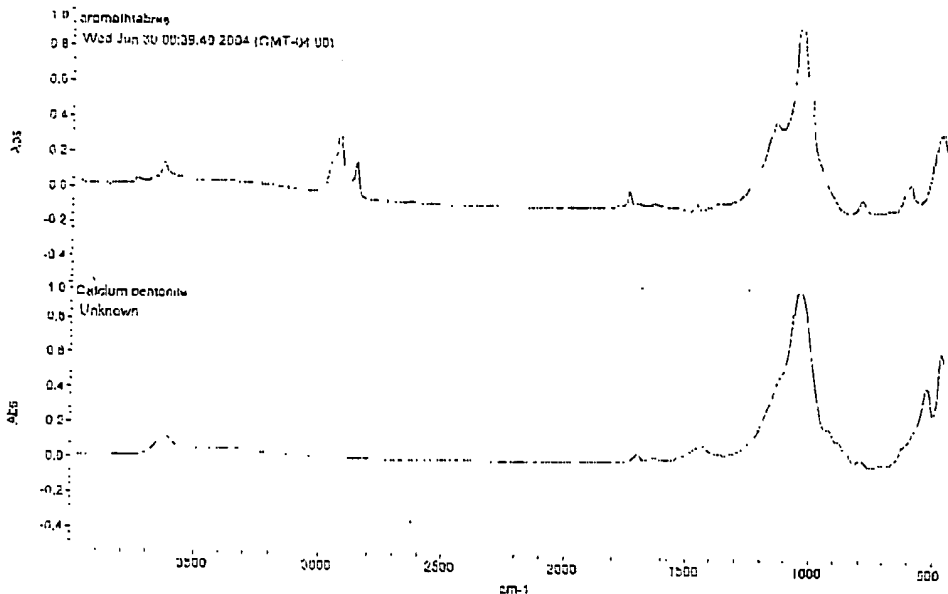
Dissolution Time: 70 seconds (49 deg.C)

Hard Water Softening: One tablet will soften 1 gallon of 114 mg/L hard water.

Plastic Compatibility: Materials Department (Report 945) evaluated compatibility with eight plastic types with no unusual compatibility issues (previous lot). This report should be reviewed for extractor design materials. The Dual V extractor valve elastomer seals (EPDM) were also compatible. Additional test also run with Sears detergent (concentrated) and 10 tablets per gallon with all extractor materials (Report M1119). No compatibility problems.

Infrared Spectra (previous lot)





Analysis

Lot: 2104-2 (August 2, 2004)

Composition: Sodium bicarbonate, 20% disodium EDTA, adipic acid, malic acid, calcium silicate, pentasodium triphosphate, fragrance, dye

Appearance: Pale yellow marble-shaped solid

Fragrance: Lemon Verbena (0.5%)

Wt. (Ave. of 8): 7.2 g

Undissolved Residue: 0.085%, 0.108% (No clay observed.)

Hard Water Softening: One tablet will soften 1 gallon of 114 mg/L hard water.

Atlas Flowrate: 2 tablets / gallon; 3 trials with and without tablets: Less than 1% difference in Flowrates

Non-phosphate Tablet Analysis

Lot: Production Tablets (September, 2004)

Composition: Sodium bicarbonate, disodium EDTA, adipic acid, malic acid, fragrance, calcium silicate, no phosphate, fragrance, dyes

Appearance: Pale orange marble-shaped solid

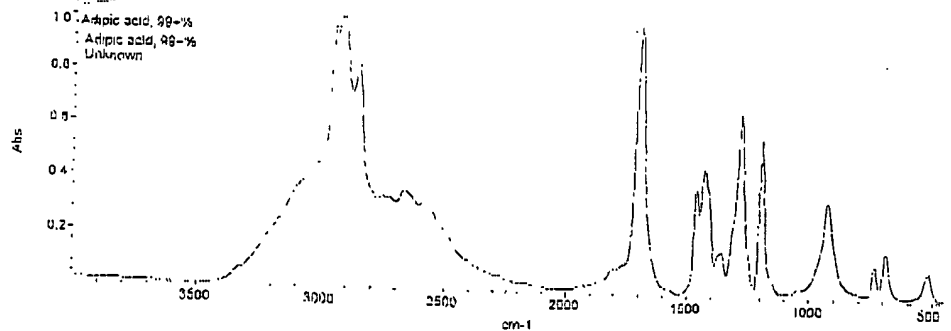
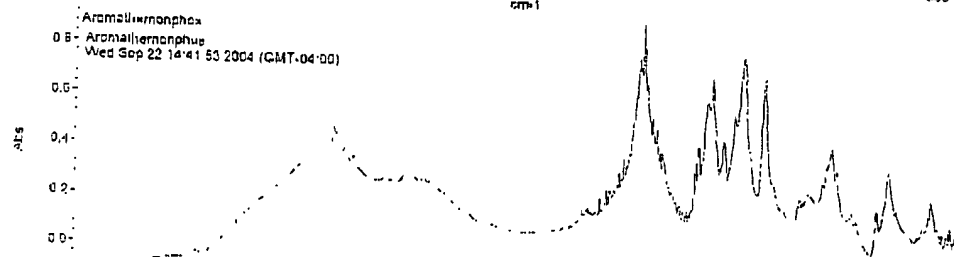
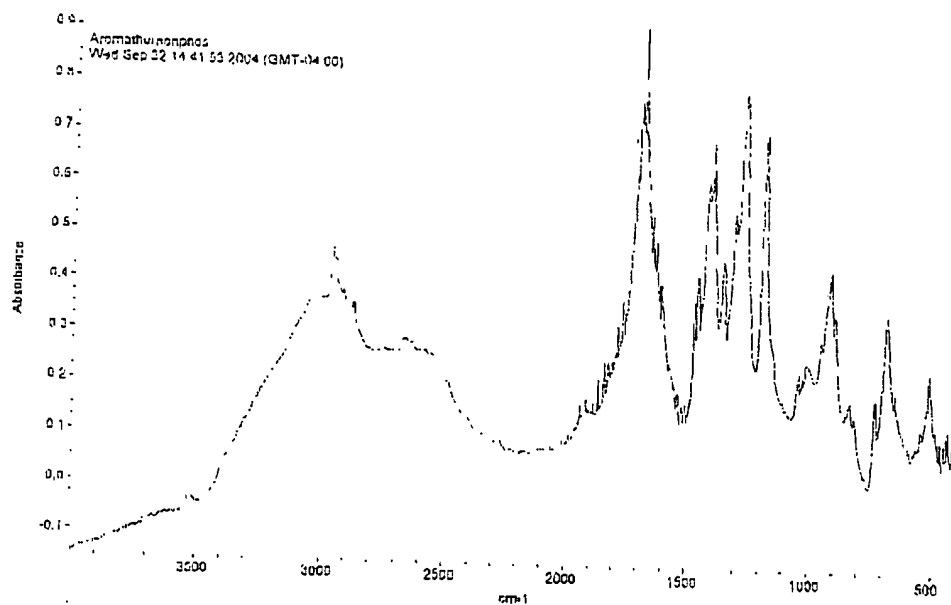
Fragrance: Lemon Verbena (0.5%)

Wt. (Ave. of 3): 7.34 g

Undissolved Residue: Average of 2 tablets: 0.15%

Hard Water Softening: One tablet will soften 1 gallon of 93 mg/L hard water.

Infrared: Adipic Acid Match



THE HOOVER COMPANY

Memo

From: Irvin Pritts

Date: October 21, 2003

Subject: Aroma Therapy Tablets

Analysis

Lot: E092303 with EDTA

Appearance: White Solid Tablet

pH: 6.1 (1 tablet/gal)

Residue (Ave. of 2): nil, (<0.005 %)

Hard Water Softening: One tablet will soften 1 gallon of 114 mg/L hard water.

Odor: Lavender

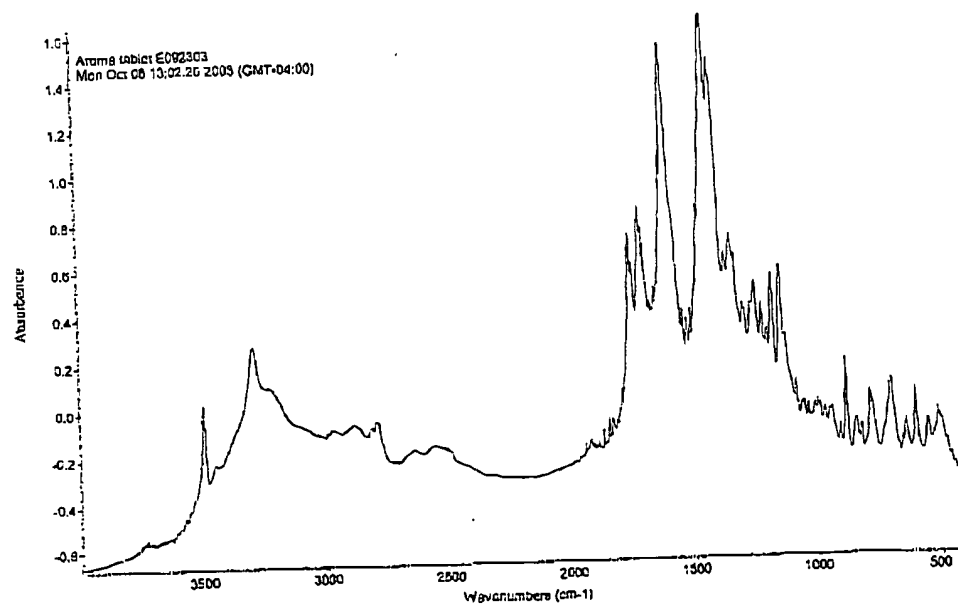
Wt. (Ave. of 5): 6.4 g

Plastic Compatibility: Materials Department (Report 945) evaluated compatibility with eight plastic types with no compatibility issues. The Dual V extractor valve elastomer O-rings (EPDM) were also compatible.

UL Approval: Will be necessary.

Cost: \$0.15/ tablet

Infrared Spectra



Subject: Hoover Docket No. 2687 - Method and Apparatus For Distributing Fragrance on a Cleaning Surface

From: PGrapes@hoover.com

Date: Fri, 9 Feb 2007 13:25:44 -0500

To: ipritts@hoover.com

CC: svmccue@rennerkenner.com

Irv:

Regarding the above-identified matter, do you happen to remember if there was any kind of testing done for this project or if you had prepared any type of worksheets or logs for this matter or did you have discussions with the attorney who filed this patent for you? We are in search of any material that would be dated between the dates of November 2002 and November 2003. We are looking for evidence for the "Conception of Idea Diligence" that indicates that this was in the making during this time period. We are under a time restraint for a response on this of 15 February 2007. If you have any questions or need further clarification please feel to contact either me or Shannon McCue at Renner Kenner.

Thank you for your assistance with this matter.

Pam Grapes
Legal Administrative Assistant
Maytag/Hoover
(330) 499-9200 Ext. 2558
(330) 497-5004 Fax

THE HOOVER COMPANY

101 EAST MAPLE STREET
NORTH CANTON, OHIO 44720
PHONE: (330) 497-5003
FAX: (330) 497-5004

FAX TRANSMISSION COVER SHEET

To:	Shannon McCue Renner, Kenner, et al.	From:	Pam The Hoover Co., Patent Dept.
Fax:	(330) 376-9646	Pages:	21 (including this page)
Phone:		Date:	9 January 2007
Re:	Hoover Docket No. 2687	CC:	

☐ **Urgent** ☒ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

Shannon:

This is some information I received from Irv Pritts today regarding this matter. I also have hard copies if you need them. I am trying to scan one of the documents to send you so you can see the color of the graphs, but our scanner is not working properly, you may not get this document until Monday.

Thanks.

Pam

This message is intended only for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure. If the recipient of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this message and its contents is strictly prohibited. If you have received this communication and you are not the intended recipient, employee or agent, please notify the above sender immediately by telephone. Thank you.

Bhupen Trivedi

From: "Bhupen Trivedi" <bhupen@elcolabs.com>
To: <ipritts@hoover.com>
Cc: <jbenson@hoover.com>; "Bill Elliott" <BILL@ELCOLABS.COM>; "HENRY R. NARCISI" <HANK@ELCOLABS.COM>
Sent: Tuesday, September 30, 2003 8:30 AM
Subject: Samples of Fragrant, conditioning tablets for UL test

We are sending, by a separate package 100 tablets of the above. These are packed 4/5 per pack. As they are effervescent, packaging material is water impermeable.

After the UL approval is received, we can proceed further in no. of tablets/ pack and also type of water impermeable packing.

Please acknowledge the receipt.

Thanks,

Bhupen

Atlas

7231

pH = 6.1

6.42 g

6.55

6.71

6.64

6.51

6.5 g / tablet

9/30/03

The Hoover Company
A Division of GEAC

HOOVER.

21 East Maple Street
Lynn, Mass., U.S.A. 01902

Oct 6 03

25 ml of 152 mg/L hardness is titrated by $\frac{2.2}{250}$ of 1 tablet.

38 ml of 100 mg/L hardness is titrated by $\frac{2.2}{250}$ of 1 tablet.

i.e. 4318 ml of 100 mg/L hardness is ~~titrated~~ ^{equivalent} by 1 tablet.

1 gallon

3774 ml (1 gal) of 114 mg/L is ~~equivalent~~ ^{equivalent} by 1 tablet

Residue: 2 tablets 13.2514g

.2501

.2542

error \approx 0.0005

0 mil.

% residue $< \frac{0.0005}{13.2514} \times 100\% = < 0.004\%$

The Hoover Company
A Division of K & G Inc.

HOOVER.

101 East Maple Street
High Station, N.C. 28540

Oct 6, 03

Aroma Therapy Tablets

E092303 with EDTA

Water Softening

Tablet: 6.508 g dissolved in 250 mL UHP water.

Tap water: 25 mL

EDTA Standard: 1 mg/L EDTA (hardness)

25 mL Tap H₂O: 3.8 mL, 3.8 mLTap H₂O: 152 mg/L Hardness = $3.8 \times 1 \times \frac{1000}{25} = 152 \text{ mg/L Hardness}$

Expt 1 - Tablet / 250 mL UHP water =

Used 25 mL: titration with Expt. sol.

2.2 mL, 2.2 mL

152 mg/L Hardness = $2.2 \left(\frac{1000}{25} \right)$ mg/L = ~~1.73~~ 1.73or $\frac{3.8}{2.2} \times 1 = 1.73 \text{ mg/L as (CaCO}_3\text{)}$

This is for 25 mL of 250

or by tablet wt:

1.73 mg ^{as} CaCO₃= $0.266 \frac{\text{mg CaCO}_3}{\text{g}}$ In 1 gallon: $1.73 \text{ mg/L} \times \frac{1 \text{ L}}{1000 \text{ mL}} \times \frac{943 \text{ mL}}{1 \text{ qt}} \times \frac{4 \text{ qt}}{1 \text{ gal}} = 6.53 \frac{\text{mg}}{\text{gal}}$ 6.53 ~~mg~~ as CaCO₃ = $\frac{.00653 \text{ g}}{100.1 \text{ g/mol moles CaCO}_3}$ = $6.52 \times 10^{-5} \text{ moles CaCO}_3$ = $6.52 \times 10^{-5} \text{ moles EDTA, Na}_2$ $6.52 \times 10^{-5} \text{ moles} \times 336.21 \text{ g/mol} = 0.0219 \text{ g Na}_2\text{EDTA}$ $\frac{.0219 \text{ g}}{6.508 \text{ g}} \times 100\% = 0.34\%$ 40.08
12.01
48.09
100.1
CaCO₃

THE HOOVER COMPANY

Memo

To: Irvin Pritts

From: Denny Blacklock

Date: October 29, 2003

Re: Aroma Therapy Tablets (Re: M945)

I. Materials

The materials that were tested are listed in the Table 1.

II. Temperature

Room temperature

III. Time

The testing time period was 5 or 10 days of continuous submersion.

IV. Test Solution Concentration

Test concentration: 10x or 5 tablets / half-gallon water. Use concentration: 1 tablet / gallon water.

V. Stress

Plastics strips were tested by bending and restraining in stress test fixtures and submersion in the test solution.

VI. Controls

Water controls were not run.

VIII. Results

The results are reported in Tables 1.

IX. DISCUSSION

The following materials are to be tested at room temperature for 10 days to see if there will be any deterioration or breakage of the various strips:

1. Delron 100 - Acetal
2. Eastar DN004 - Polyester
3. Lexan 500R - Polycarbonate
4. Valox 325 - PBT
5. MG38 - ABS
6. Ticona M90 - Acetal
7. Eastman X28520-029A - PC/Polyester Blend
8. Elastomer (EPDM) O-Ring
9. SteamVac Grommet
10. SteamVac Coiled Spring

Table 1. Aroma Therapy Tablets (Re: M945) Compatibility Test Results

Plastic	5 Days	10 Days
Delron 100 (Acetal)	No Effect	No Effect (A little brittle)
Eastar DN004 (Polyester)	No Effect	No Effect (A little brittle)
Lexan 500R (Polycarbonate)	No Effect	Broke when flexed
Valox 325 (PBT)	No Effect	No Effect (A little brittle)
MG38 (ABS)	No Effect	Broke when flexed
Ticona M90 (Acetal)	No Effect	No Effect (A little brittle)
Eastman X28520- 029A (PC/Polyester Blend)	No Effect	Broke when flexed
Elastomer (EPDM) O- Ring	No Effect	No Effect
SteamVac Grommet	No Effect	No Effect
SteamVac Coiled Spring	No Effect	No Effect



Irvin Pritts

07/29/2003 08:16 AM

To: Brett Schenck/Eng/Hoover/Maytag,
cc: Burgess Lowe/Eng/Hoover/Maytag, Debby Tucker/Eng/Hoover/Maytag,
James Benson/Mktg/Hoover/Maytag
Subject: Aroma Therapy Extractor Rinse Tablets

James Benson is negotiating with Sears for the Kenmore extractor contract and has offered these tablets as an exclusive. He would like to see if we could protect these with a patent. I had previously requested a patent search on these but I believe this item was later dropped from the research priority list? I guess we would have to start from scratch?

*Irv**Applied to extraction -*

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

☒ **BLACK BORDERS**

☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**

☐ **FADED TEXT OR DRAWING**

☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**

☐ **SKEWED/SLANTED IMAGES**

☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**

☐ **GRAY SCALE DOCUMENTS**

☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**

☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**

☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.